

Appl. No. 09/647,965

**Amendments to the Abstract:**

Please insert the abstract page enclosed herewith.

**Abstract**

The present invention relates to IRF proteins that have been modified in the carboxy-terminus domain (transactivation domain) by modification of serine and/or threonine sites. Modification may be achieved by phosphorylation of serine and/or threonine, or by replacement of serine and/or threonine residues with residues having acidic side-chains, preferably carboxylic acid-containing side-chains, such as aspartic acid or glutamic acid residues. Such modified proteins may be mutants of IRF-3 and IRF-7, including chimeric proteins having portions of both IRF-3 and IRF-7, and post-translationally modified (phosphorylated) IRF-3 protein, the phosphorylation being induced by Sendai virus infection. More specifically, the present invention provides a modified interferon regulatory factor (IRF) protein, the protein comprising at least one modified serine or threonine phosphoacceptor site in the carboxy-terminus domain, preferably wherein cytokine gene activation by the modified IRF is increased relative to cytokine gene activation by a corresponding wild type IRF protein. The invention also provides for pharmaceutical compositions containing IRF protein, and uses of the protein, nucleotide sequence encoding it, and pharmaceutical compositions containing it.